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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,912	11/26/2003	Toshiaki Yoshihara	1100.68758	1901

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EXAMINER

WU, XIAO MIN

ART UNIT PAPER NUMBER

2629

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,912	<b>Applicant(s)</b> YOSHIMURA ET AL.	
	<b>Examiner</b> XIAO M. WU	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-28 is/are allowed.
- 6) ☒ Claim(s) 1-10, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/26/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 and 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Makino et al. (US 6,570,554)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

As to claims 1, 3, 8, 29, 30, Makino discloses field-sequential type display device (e.g. LCD) for performing a display by synchronizing successive switching of lights of a plurality of colors to be incident on an optical switching element (e.g. pixels of LCD) from a light source (Fig. 16A) with inputting of display data of each color corresponding to an image to be displayed into the optical switching element, comprising: a light introducing unit (R, G, B, Fig. 16A) for making light of a corresponding color from the light source incident on the optical switching element in synchronism with a start timing of display data writing scanning on the optical

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switching element for each color (see Figs. 16A and 16B, the light source red is turned on in synchronism with the data writing); and an interrupting unit (NLF SF, Fig. 16A) for interrupting the incidence of light of a color corresponding color from the light source on the optical switching element in synchronism with an end timing of display data erasing scanning on the optical switching element for each color (see 16A and 16B), wherein a predetermined time (NLF SF, Fig. 16A) is provided between an interruption timing of incidence of light of one color on the optical switching element and a start timing of incidence of light of the next color on the optical switching element (see Figs. 16A, 16B).

As to claim 2, Makino discloses predetermined time is equal to a time from an end timing of display data writing scanning on the optical switching element to a start timing of display data erasing scanning on the optical switching element (e.g. NLF SF = R-SF and G-SF and B-SF, Fig. 16A).

As to claim 4, Makino discloses red, green, blue and white light (see Fig. 11).

As to claim 5, Makino discloses a control unit for controlling, based on display data, ON/OFF of the light source for emitting light of a color corresponding to the display data (see Figs. 16A-16C).

As to claim 6, Makino discloses an irradiation region of light to be incident on the optical switching element is divided (see Fig. 16C).

As to claim 7, Makino discloses a stopping unit for stopping scanning on the optical switching element when the light source for emitting light of a color corresponding to the display data is turned off (see Figs 16A, 16B).

As to claim 9, Makino discloses a ferroelectric liquid crystal material (col. 2, lines 17-19).

As to claim 10, Makino discloses an applied voltage to the liquid crystal panel during display data writing scanning and an applied voltage to the liquid crystal panel during display data erasing scanning are equal in magnitude and opposite in polarity (see col. 13, lines 1-10).

***Allowable Subject Matter***

3. Claims 11-28 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art alone or in combination teaches or fairly suggests the limitation of “an end timing of display data writing scanning on said optical switching element and a start timing of display data erasing scanning on said optical switching element for each color do not coincide, and a relation  $T_B + T_C = T_A + T_D$  is satisfied...” as required in independent claim 11.

None of the prior art alone or in combination teaches or fairly suggests the limitation of “light introducing unit for making light of a corresponding color from said light source incident on said optical switching element before a start timing of display data writing scanning on said optical switching element for each color” as required in independent claim 20.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The US 5,122,791, 5,416,496, 6,115,016, and 6,392,620 are cited to teach a LCD device with a backlight source control.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.

June 26, 2006

  
**XIAO M. WU**  
**Primary Examiner**  
**Art Unit 2629**